Original Article

UTILIZATION OF MATERNAL HEALTH SERVICES IN URBAN AND RURAL COMMUNITIES OF ANAMBRA STATE, NIGERIA.

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ABSTRACT

OBJECTIVE: This study determined and compared the level and pattern of utilization of maternal services in urban and rural communities in Anambra State.

DESIGN AND METHOD: A comparative cross-sectional study was carried out in two local government areas (LGA); Nnewi North (urban) and Dunukofia (rural). A total of 338 mothers of children aged 0-59 months in each of the two LGAs selected by multistage cluster sampling technique were studied. Data were collected using an interviewer administered questionnaire, analyzed and tests of significance performed with the p-value set at 0.05.

RESULTS: Women in the rural area had higher fertility rate ($t=4.53$, $p<0.05$) and more children than their urban counterparts ($t=4.79$, $p<0.05$). The mean number of antenatal care (ANC) before delivery in urban and rural areas were 8.0±4.2 and 5.9±2.4 respectively and the difference was statistically significant ($t = 7.52$, $p <0.05$). Half of the urban respondents delivered in private hospitals while 43.8% of rural respondents delivered in maternity homes. There was no significant difference in the pattern of post natal care utilization in both localities ($\chi 2=0.695$, $p=0.405$), as most of the women in both localities went for post natal consultation within 6 weeks of delivery.

CONCLUSION: Measures to improve maternal health service utilization especially in rural areas should not only address the issue of access to care, but also improvement in quality of care and women empowerment.

INTRODUCTION

Maternal health (MH) services begin at the time of conception and include prenatal, intra-natal and postnatal care. Prenatal supervision of the mother promotes good health and proper nutrition of the mother. Also, complications of pregnancy are prevented or treated. Intra-natal services provide skilled care by trained midwives during childbirth, while postnatal care checks on the mother's health after delivery and includes family planning services. Postnatal care makes it possible for a health care provider to diagnose and prevent some of the chronic and disabling conditions common in women[1].

Various ways have been used to describe MH services utilization. Yesudian described full antenatal care (ANC) utilization as three or more antenatal check-ups (with the first checkup within the first trimester of pregnancy), two or more tetanus toxoid injections, and Iron and folic acid tablets or syrup for three or more months.[2] Iraq's Maternal, Child and Reproductive Health Strategy for 2005-2008 aimed at achieving antenatal care (ANC) utilization rate of at least five visits during pregnancy.[3] ANC utilization can also be assessed using proportion of women who received ANC at least once during the last pregnancy.[4,5] Percent of deliveries by skilled attendant is defined as proportion of births or deliveries attended by skilled health personnel or skilled attendant: doctors

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(specialist or non-specialist) and/or persons with midwifery skills who can diagnose and manage obstetrical complications as well as normal deliveries.[6] Delivery in a health facility describes deliveries that took place in a health care facility either public or private. Post natal care (PNC) utilization is measured based on proportion of mothers who visit the PHC centers at least once during the 6 weeks following delivery.[2, 3]

Literature for the status of access and use of health care in developing countries identifies cost, distance and education as the principal factors influencing utilization of health services. Low quality of care characterized by shortage of manpower, poor staff attitude, dissatisfaction with maternal services, long waiting hours and unavailability of drugs or vaccines have also been advanced as reasons for low utilization of healthcare. Disparity in distribution of health resources between urban and rural communities to the disadvantage of the latter, aggravated by low income, ignorance, poor infrastructure contributes significantly, to further reduce health services utilization in the rural areas. [7, 8,]

Despite significant advances in efforts aimed at reducing maternal mortality, the majority of women residing in disadvantaged communities still face multitudes of problems that need to be addressed. Policy Project, an implementing partner of USAID that specializes in child survival issues observed that, "in most developing countries, access to safe motherhood services in rural areas is more limited than in urban areas." This issue is important as majority of the population of developing countries live in rural areas. [9]

Understanding the barriers that prevent good quality MH service provision and utilization can be useful in efforts to encourage women to utilize the services; planning for more efficient services that can help reduce maternal deaths, especially in rural areas; improving the health and lives of all women during and after pregnancy; developing appropriate community and behaviour-change interventions in order to improve utilization of maternal care services; and the design of maternal health campaign services in the country.

The general objective of this study is to determine and compare the level and pattern of utilization of MH services, and the factors influencing them among mothers of children aged between 0-59 months in urban and rural communities in Anambra State. The specific objectives include:

1. To determine the level and pattern of MH services utilization among the study populations.
2. To identify the factors influencing MH services utilization among the study populations.
3. To compare the factors influencing MH services utilization among the study population in both urban and rural communities.

METHODOLOGY

Study Areas: The study areas were Nnewi North and Dunukofia local government areas (LGAs) of Anambra State, South East Nigeria. The two towns are approximately 32km apart

Nnewi North LGA is an urban community that is made up of four main villages viz: Otolo, Uruagu, Umudim and Nnewi-Ichi. It has an approximate total population of 157,569 (based on the 2006 National Population Census) 79,962 males and 77,607 females.[10] The town is located about 10km from Onitsha and about 20km from the State capital, Awka. Nnewi is famed for commerce and industry where it ranks first in the importation of fairly used motorcycles in the country and ranks very high in the importation of motor and motor cycle spare parts, electronics from Europe, the United States and the Far East. Most inhabitants of the town are traders, while few are civil servants, artisans and farmers. Among the numerous health facilities found in Nnewi are the Nnamdi Azikiwe University Teaching Hospital, ten PHC centers, twelve health posts and a number of private hospitals. A total of thirty-five health facilities offer MH services in the town

Dunukofia LGA, on the other hand is rural in character and consists of 6 communities viz: Ifitedunu, Ukpo, Ukwulu, Umunnachi, Nawgu, Umudioka. It has 14 wards and a total population of males and females (according to the 2006 National Population Census) of 50,731 and 45,657 respectively; giving a total of 96,382.[11] It is located about 7km from the state capital, Awka. The LGA consists of inhabitants who are mostly subsistent farmers, petty traders and a few civil servants. The sources of water supply are from rain water, local streams and shallow wells. There are no industries in this town. Dunukofia LGA houses the Primary Health

Care Unit of the Nnamdi Azikiwe University Teaching Hospital at Ukpo. The other health facilities are five PHC units run by the LGA, six health posts and seven private hospitals. A total of twelve (12) health facilities offer MH services in the town.

Study Population: The target populations were mothers with children aged 0–59 months in both communities who consented to being studied. A sample of the population was studied.

Study Design: This is a comparative cross-sectional study involving two communities, one urban and one rural. A quantitative assessment of MHS utilization in both communities was done and subsequent comparisons were carried out.

Sample Size Estimation:
Comparison of two groups: urban/rural

$$n = \frac{2Z^2pq^{12}}{d^2}$$

where n = Minimum sample size, z = standard normal deviate (usually 1.96) at 95% confidence limit, p = Proportion of mothers utilizing MCH services in Anambra State, and is 89.0%,[4]

q = 1 – p, d = degree of accuracy desired set at 0.05

$$\therefore\ n = \frac{2(1.96)^2(0.89 \times 0.11)}{(0.05)^2} = \frac{7.68 \times 0.0979}{0.0025} = 305$$

With anticipated 90% response rate, the sample size thus selected

$$= \frac{305}{0.9}$$

Therefore, a total of 338 respondents constituted the sample size for each group

Sampling Technique: Multistage, cluster sampling technique was used in selecting the subjects for the study. Out of the twenty-one Local Government Areas that make up Anambra state, the National Population Commission (NPC) designated seven LGAs as urban LGAs, while the remaining fourteen LGAs are rural LGAs. With each stratum of LGAs, (that is urban and rural LGAs) as the sampling frame, simple random sampling using simple balloting was used to select Nnewi North and Dunukofia LGAs as the study urban and rural local government areas respectively. By simple random sampling method, two towns-Nnewichi and Umudim, and two towns-Ukpo and Ifitedunu were selected from Nnewi North and Dunukofia LGAs respectively. The two selected towns in Nnewi North LGA are made up of two wards each, while in Dunukofia LGA, Ifitedunu and Ukpo have three wards each. Therefore, a total of four wards and six wards were sampled in Nnewi North and Dunukofia LGAs respectively. Each ward is representative of a cluster and all the eligible households in the selected communities were recruited for the study. From each ward in Nnewi North LGA a total of 86 respondents were interviewed, while a total of 56 respondents were also interviewed in the selected wards in Dunukofia LGA. An eligible household is a household with a woman who has a child aged 0-59 months. Where a selected household was not eligible, it was replaced with an eligible household selected by simple random sampling. The process was continued until the required sample size for each ward was obtained.

Data Collection: A semi-structured, pre-tested, interviewer administered questionnaire was used to collect information from the respondents. For effective data collection research assistants were trained on the interview technique, vernacular translation and accurate record keeping to enhance validity. The study participants were visited and interviewed at their homes. Information on the respondents' age, marital status, socioeconomic status (occupation and educational status of their spouse) was collected; as well as the age, sex and number of children they have. Also, their choice of place for ANC, delivery and PNC and also factors influencing their use of such services were assessed.

Data Analysis: Data were analyzed using SPSS version 13 software of the computer. Chi square was done to ascertain the differences between urban and rural in relation to demographic and socioeconomic characteristics, geographic accessibility and MH service utilization. P-value was set at 0.05. Delivery rate was assessed based on the proportion of clients

who attended ANC at least once that delivered in the facility. The difference between total ANC attendance and delivery, and also the percent difference in delivery were used to discover the gap between the two. PNC utilization rate was assessed based on the proportion of women who attended ANC at least once that visited facility 6 weeks after delivery for checkup.

Pretest: The questionnaire was pre-tested among 20 mothers with children aged 0-59 months of age residing at Awka and Neni; who were not part of the study population but share similar characteristics with the study areas. Findings of the pretest were used to determine appropriateness of study design and research tool, appropriateness of format and wording of the questionnaires, as well as the time needed to carry out interviews.

Ethical Consideration: Ethical clearance was obtained from the NAUTH Ethics Committee, Nnewi. Permission was obtained from the Igwes (traditional rulers) of the two communities and heads of the public health facilities offering MH services for the use of data from their facility records for the study. Informed consent was obtained from each mother participating in the study after proper and thorough explanation of details of the study.

RESULTS

Table 1 shows that the majority of the respondents were aged 25-34 years in the urban (54%) and rural (45.4%) areas. Most respondents in both localities were married while all those in the urban area had formal education with 67.8% attaining tertiary level of education. Conversely, 16.4% of the rural community respondents had no formal education even though 54.4% of them had secondary education. Respondents that had 2nd to 4th pregnancies (multigravida) were 228 (67.5%) and 167 (49.4%) in urban and the rural areas respectively. Women who have had $\geq$ 5 pregnancies (grand multigravida) were more in the rural area 125 (37.0%) compared to the 67 (19.8%) in the urban area. The greatest number of the respondents had between 2 to 4 children (multipara); 228 (67.4%) in the urban area and 172 (50.9%) in the rural area. Also in the rural area 111 (32.8%) have 5 children (grand multipara) while in the urban area 54 (16.0%).

Table 2 shows that most women in both localities attended ante natal care consultation in a health care facility in both Nnewi North and Dunukofia during their last pregnancy. Most of them also commenced ANC within the first trimester. Significant proportion of the women from Nnewi North (46.4%) utilized the private hospitals for ANC services ($\chi^2 = 54.08$, $p < 0.05$), while those from Dunukofia were more likely to visit maternity homes ($\chi^2 = 56.25$, $p < 0.05$). Also, women in the urban areas were more likely to make their first ANC visits within the first trimester ($\chi^2 = 8.99$, $p = 0.003$).

Table 3 shows the mean ANC visits before delivery. It shows that the mean number of visits in urban and rural areas were 8.0 ± 4.2 and 5.9 ± 2.4 respectively and the difference was significant statistically ($t = 7.52$, $p < 0.05$).

Table 4 shows the reasons for non-attendance of ANC during last pregnancy by the respondents. Distance was the commonest reason given by the non-attendees in the urban area (42.8%), however inability to afford the cost of delivery was the commonest reason for non-utilization of ante natal services among the rural respondents (68.2%) against 21.4% in the urban respondents. Other reasons mentioned by the respondents in the rural area include poor attitude of staff and long waiting time.

Choice of place of maternity services followed similar pattern as the ANC consultation (table 5). Half of the women in the urban area delivered in private hospitals (50.5%) while the remainder delivered in public health facility (29.0%), maternity homes (16.9%) and at home (0.9%), while, most (43.8%) of the women in the rural area delivered in maternity homes, followed by health centers (22.2%) and private hospitals (18.9%). More so, more rural women delivered at home and by TBA. Skilled birth attendance was more in the urban area (89.1%) than in the rural area (78.4%). Majority of women in the urban area (either singly (25.1%) or with their spouse (63.0%)) decided on the place of delivery, compared to 70% of them in the rural area. Twenty five per cent of the women in the rural area were not involved in the decision on the choice of place of delivery compared to 7% of them in the urban area.

The commonest reasons for non-facility delivery in the urban areas were 'husband's decision' (29.7%) and 'cost' (13.5%), while 'cost' (53.4%), 'husband's decision' (20.5%) and 'distance' (16.3%)

were major reasons for non facility delivery in the rural areas as shown by table 6.

Table 7 shows pattern of postnatal care utilization in both localities. Majority of the women in both localities had postnatal consultation within 6 weeks after delivery. There was no significant difference in the pattern of postnatal care utilization in both localities ($\chi^2 = 0.695$, $p = 0.405$). The commonest reasons mentioned by the mothers for PNC utilization were 'to make sure she was back to normal' and 'baby's need for immunization'. However, more rural women visited the health facility after six weeks for reasons of family planning and because of need to obey the midwife's instructions. 'Distance' (18.6%) and 'cost' (50.8%) were also the commonest reasons for non utilization of post natal care in the rural area; 'cost' (15.7%) and the fact that they did not plan for it' (13.7%) were the reasons why women in the urban area did not utilize the services.

Table 1: Sociodemographic characteristics of respondents

Demographic Variable	Urban Frequency (%) [n = 338]	Rural Frequency (%) [n = 338]	χ^2	p-value
Age group (Years):				
< 20	6 (1.8)	24 (7.1)	11.302	0.001*
20 – 24	17 (5.0)	36 (10.7)	1.272	0.259
25 – 29	74 (21.9)	73 (21.6)	0.009	0.926
30 – 34	109 (32.3)	79 (23.4)	6.631	0.010*
35 – 39	68 (20.1)	61 (18.0)	0.469	0.493
= 40	41 (12.1)	58 (17.1)	3.420	0.064
No response	23 (6.8)	7 (2.1)	8.930	0.003*
Marital status:				
Married	286 (84.5)	279 (82.4)	0.528	0.467
Single	30 (8.9)	32 (9.5)	0.071	0.790
Widowed	8 (2.4)	11 (3.3)	0.487	0.485
Separated	2 (0.6)	6 (1.8)	F2.024	0.155
Divorced	2 (0.6)	3 (0.9)	F0.201	0.654
No response	10 (3.0)	7 (2.1)	0.543	0.461
Educational status:				
No formal education	0 (0.0)	16 (4.7)	F16.300	0.000*
Primary	13 (3.8)	76 (22.5)		
Secondary	87 (25.7)	184 (54.4)	293.149	0.000*
Tertiary	229(67.8)	55 (16.3)		
No response	9 (2.7)	7 (2.1)	0.256	0.613
Number of pregnancies:				

*Statistically significantF = Fischer exact

Table 2: Utilization of MH services regarding ANC

Utilization	Urban Frequency (%) [n = 338]	Rural Frequency (%) [n = 338]	χ^2	p-value
Attendance of ANC during last pregnancy	324 (95.9)	316 (93.5)	1.878	0.171
Place of attendance of ANC:				
Private hospital	157 (46.4)	67 (19.8)	54.081	0.000*
Public health facility	109 (32.2)	96 (28.4)	1.183	0.277
Maternity homes	59 (17.5)	149 (44.1)	56.250	0.000*
TBA	1 (0.3)	3 (0.9)	F 0.251	0.616
Others	4 (1.2)	1 (0.3)	F 0.806	0.369
Do not decide	8 (2.4)	22 (6.5)	6.837	0.009*
Time of first attendance (weeks):				
1 – 12 (first trimester)	326 (96.4)	307 (90.8)	8.966	0.003*
> 12	12 (3.6)	31 (9.2)		

*Statistically significantF = Fischer exact

Table 3: Mean number of ANC visits before delivery

Utilization	Urban Mean±SD [n = 312]	Rural Mean±SD [n = 296]	t-test	p-value
ANC visits before delivery	8.0±4.2	5.9±2.4	7.52	0.000*

*Statistically significant

Table 4: Reason for non-attendance of ANC during last pregnancy

Reason	Urban Frequency (%) [n = 14]	Rural Frequency (%) [n = 22]
Health facility is far	6 (42.8)	4(18.2)
Cannot afford cost of delivery	3 (21.4)	15(68.2)
Long waiting time	2 (14.3)	1(4.5)
Poor attitude of staff	0 (0.0)	2(9.1)
No reason	3 (21.5)	0 (0.0)

Table 5: Utilization of maternity services among the respondents

Utilization	Urban Frequency (%) [n = 338]	Rural Frequency (%) [n = 338]	X^2	p-value
Place of last delivery:				
Private hospital	171 (50.5)	64 (18.9)	94.681	0.000*
Public health facility	98 (29.0)	75 (22.2)	4.109	0.043*
Maternity homes	57 (16.9)	148 (43.8)	57.977	0.000*
TBA	1 (0.3)	11 (3.3)	F6.872	0.009*
Others- home	3 (0.9)	17 (5.0)	F0.708	0.003*
No response	8 (2.4)	23 (6.8)	7.607	0.006*
Delivery was attended to by doctor/midwife	301 (89.1)	265 (78.4)	14.072	0.000*
Person who decided choice of place of delivery:				
Couple	213 (63.0)	173 (51.2)	9.662	0.002*
Self	85 (25.1)	63 (18.6)	4.187	0.041*
Spouse	16 (4.7)	49 (14.5)	18.536	0.000*
Mother	6 (1.8)	22 (6.5)	9.538	0.002*
Mother-in-law	1 (0.3)	11 (3.3)	F6.872	0.009*
Others	1 (0.3)	4 (1.2)	F0.806	0.369
No response	16 (4.7)	16 (4.7)	0.000	1.000

*Statistically significantF = Fischer exact

Table 6: Mothers reasons for not delivering in a health facility

Reason	Urban Frequency (%) N=37	Rural Frequency (%) N=73	χ^2	p-value
Husband's decision	11 (29.7)	15 (20.5)	0.640	0.424
Could not afford it	5 (13.5)	39 (53.4)	28.102	0.000*
Health facility too far	2 (5.4)	12 (16.3)	F1.549	0.213
My decision	3 (8.1)	1 (1.4)	1.789	0.181
No ready means of transport	1 (2.7)	4 (5.5)	F0.031	0.860
Others	2 (5.4)	2 (2.7)	F0.028	0.868
No response	13 (35.1)	0 (0.0)	F25.812	0.000

Table 7: Utilization of MH services regarding postnatal care

Utilization	Urban Frequency (%) [n = 338]	Rural Frequency (%) [n = 338]	χ^2	p-value
Went back to health worker 6 weeks after delivery	287 (84.9)	279 (82.5)	0.695	0.405
Did not go back to health worker 6 weeks after delivery	51 (15.1)	59 (17.5)		
Reason for 6 weeks postnatal visit:	**[n = 287]**	**[n = 279]**		
To make sure I was back to normal	192 (66.9)	128 (45.9)	25.440	0.000*
Baby needed immunization	169 (58.9)	159 (57.0)	0.209	0.648
Midwife said so	19 (6.6)	34 (12.2)	5.164	0.023*
I wanted to start family planning	13 (4.5)	30 (10.8)	7.804	0.005*
My ill health	11 (3.8)	8 (2.9)	0.406	0.524
Reason for no postnatal visit:	**[n = 51]**	**[n = 59]**		
Could not afford it	8 (15.7)	30 (50.8)	14.956	0.000*
My decision	6 (11.8)	6 (10.2)	0.072	0.789
Health facility too far	0 (0.0)	11 (18.6)	F9.241	0.002*
Not planned	7 (13.7)	1 (1.7)	F3.162	0.075
Dislike of facility	4 (7.8)	0 (0.0)	F2.263	0.132
Husband's decision	1 (2.0)	2 (3.4)	F0.000	1.000
No ready means of transport	0 (0.0)	3 (5.1)	F1.339	0.247
No response	25 (49.0)	6 (10.2)	20.399	0.000*

*Statistically significantF = Fischer exact

DISCUSSION

The mean ages of the respondents in both communities did not differ significantly. Women in the urban area were more educated. The fertility rate of the rural women was higher and they also had more surviving children. The National Health and Demographic survey of 2003 also reported higher fertility rate among the rural households than the urban households.[13]

Most of the mothers attended ANC in their last confinement reporting ante natal care utilization rate of more than 90% which is higher than the national average ANC services utilization rate of 59%. This is high compared to South Africa where ANC services utilization rate was reported to be in the range of 66% and 78%.[2, 14] In Kenya, a comparable ANC services utilization rate of 92% was reported. Previous studies also revealed high ANC services utilization in south east Nigeria. In Oji River LGA in Enugu State 96% ANC service utilization rate was reported, while UNFPA reported 89% and 96.8% for Anambra and Abia States respectively in 2004.[4,5] Most mothers studied also visited a health facility for antenatal consultation; private hospital, public health facility and maternity homes. Utilization of private hospitals for ANC was

less in the rural areas. A study of ANC utilization in Enugu State also showed that women in rural area were less likely to utilize private hospitals for ANC services, although in comparison with this study the proportion of women in the rural communities utilizing antenatal care services was relatively low. Only about 30% of the women utilized public health care facilities compared to 59% reported by Uzochukwu et al in Oji River LGA.[5] Private health care facilities are known to provide convenience and good interpersonal relationship between client and provider which is often lacking in most public health care facilities.

Most of the women in both localities visited ANC clinic for the first time during the last pregnancy in the first trimester. In India only 33% of women commenced their ANC visits within the first trimester. Early booking for ANC allows early detection and management of potential risks to the baby and mother during pregnancy and labour, resulting in better pregnancy outcome. Also, average ANC attendance was high and more than the recommended total number of visits for the focused ANC, which is 4 times. Facility delivery was also high. Only 3.3% and 5.0% of women in the rural areas were delivered by either a TBA or delivered at home respectively. However, non-facility delivery rate in this study was lower compared to the proportion reported by Uzochukwu et al in 2004 [5] and also less than the national average of 60%.[4] It is even lower compared to the rate reported in Iraq and India. In India about half of the women delivered at home without professional medical supervision.[1,3] Also, non facility delivery was higher in the rural communities as more delivered either at home or by a TBA. Most women in the rural area delivered in a maternity usually manned by a nurse/midwife or public health facilities which in this case were health centers. The maternities though mostly owned by nurse/midwifes were often staffed with auxiliary nurses who have limited obstetrics skills. Most deliveries in the urban area took place in private health care facilities and were more likely to be attended to by skilled birth attendants, because almost all of them are owned by qualified doctors.

Post natal care utilization like the ANC and deliveries also was high among the respondents. Most women visited to ascertain the state of their health and for the immunization of their babies, while fewer did so because the midwife instructed them to do so or for family planning. Barriers to maternal health service utilization as observed in this study include physical and economic access to care, attitude of care providers, husband's opinion, long waiting time, and unavailability of drugs. In addition to the earlier mentioned barriers patient's personal decision, failure to plan for postnatal consultation and dislike for health facility were other reasons mentioned for non utilization of postnatal care services. Previous studies have demonstrated a relationship between these barriers and optimal utilization of MH services.[7,8,15]

Inaccessibility to and non-availability of maternal health care services to women needing such services is a well known barrier to MH service utilization in developing countries. The poor and those in the rural communities are more significantly affected. Uzochukwu et al reported that women were more likely to patronize health facilities closest to them.[16] In Ghana, distance, cost of service and income were also reported as factors influencing maternal service utilization.[7] Interventions to improve physical accessibility to health centers had been shown to improve health care service utilization.[17] However, increasing accessibility to maternal health services does not always translate to increased utilization as reported in a study in Eastern Nigeria,[15] as patients are not likely to visit health care facilities where services are perceived as low quality.

MH service utilization was high in both urban and rural areas; however pattern of utilization differed significantly in both localities. Women in the urban areas were more likely to patronize private hospitals, while their rural counterparts were more likely to visit maternity homes either for ANC or for delivery. The increased patronage of private hospitals is not unconnected with the increased role of private sector in healthcare delivery in South Eastern Nigeria because they appear more convenient and less time consuming. Also, most of the private health care facilities are located in the urban areas where they believe their services are better patronized.[7] Maternity homes though privately owned provided cheaper and convenient alternative for the rural women. Also, women in the rural areas were more likely to patronize a TBA or deliver at home, while attendance by a skilled birth attendant was more likely in the urban.[6] The implication of this is that rural women not only lack access to quality maternal health care services, they are also failing in a key indicator for measuring Millennium Development Goals (MDG 5).

Distance was a major barrier limiting

utilization of maternal health care services in both localities but more so for the rural women. Although, there was no significant difference in the relative distance of health facility from place of residence in both areas, the fact that most urban households had more cars and also have ready access to transportation invariably reduces the time and cost of accessing the health care facilities. Consequently, the effect of distance was accentuated by lack of functional personal means of mobility and ready access to transportation in the rural area resulting in increased cost of accessing care; both direct and indirect cost.

Also, more women in the rural area were less likely to decide on the place for delivery on their own than their urban counterparts. This might be because women in the urban area were more economically empowered than those in the rural area, having better education, more access to media and ownership of household items including personal means of mobility. Although, more urban women were involved in making household decisions, spousal influence was the commonest reason for failing to deliver in a health facility. Inability of a woman to take decisions concerning her health has been shown to negatively impact on their utilization of health care services. Utilization of postnatal care services were primarily influenced by different factors. For the women in the urban area it was to make sure that they were back to normal, while the rural women were more likely to visit either because the midwife said so or for family planning. However, in both urban and rural areas, immunization was an important reason for attending postnatal consultation.

In conclusion this study investigated and compared the utilization of maternal health services in rural and urban communities in Anambra State. Maternal health services begin at the time of conception and include pre-natal, intra-natal and post-natal care. Factors that influenced MH service utilization included distance of MH care facilities, long waiting time, poor attitude of staff, unavailability of drugs, socio-economic status of the respondents, no ready means of transportation and who takes decision on the usage of MH services. These factors varied in both areas. Health facility records also confirmed better service utilization by mothers in the urban area than those in the rural. Thus, it can be concluded that women in rural Anambra State unlike their urban counterparts do not access quality maternal healthcare due to their poor socioeconomic status.

The recommendations for optimal national scaling up of MH services amongst women and children need a multi-sectoral approach with coordination and commitment from the government, donor agencies and communities. The following considerations are essential for improving MH utilization; 1. Measures should be taken to improve female education and income earning ability especially of rural women to enable them make decisions on issues pertaining to their health. 2. Men should be educated further through the use of mass media on their role on maternal health so as to enable them to positively impact on the health status of their wives and children. 3. Efforts to improve maternal service utilization should focus both on increasing accessibility and improving quality of service delivery by the provision of skilled birth attendants particularly in the rural areas, and also ensure their sustainability. 4. Government policies should put into consideration strategies which will help in mobilizing the populace for active participation in their own healthcare including health education of peers and neighbors.

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